Solar PV module SI-48MN

Electrical data (STC)			SI-48MN215	SI-48MN220	SI-48MN225	SI-48MN230
Rated Power	P_{MPP}	[W]	215	220	225	230
Rated voltage	V_{MPP}	[V]	24.8	24.9	25.0	25.1
Rated current	I_{MPP}	[A]	8.67	8.83	9.00	9.18
Open-circuit voltage	V_{OC}	[V]	31.3	31.3	31.4	31.4
Short circuit current	I_{SC}	[A]	9.56	9.62	9.69	9.76
Efficiency	η	[%]	16.1	16.5	16.9	17.3

Electrical values measures under standard test conditions (STC): 1000 W/m² ; 25°C; AM 1.5

Electrical data (NOCT)			SI-48MN215	SI-48M220	SI-48M225	SI-48M230
Power	P_{MPP}	[W]	156	160	163	167
Voltage	V_{MPP}	[V]	22.4	22.5	22.5	22.6
Current	I_{MPP}	[A]	6.98	7.10	7.24	7.39
Open-circuit voltage	V_{OC}	[V]	28.6	28.6	28.7	28.7
Short-circuit current	I_{SC}	[A]	7.73	7.78	7.84	7.90
Efficiency	η	[%]	14.6	15.0	15.3	15.7

Electrical values measures under operating conditions of cells: 800 W/m²; 20°C; AM 1.5;
wind 1 m/s NOCT: 48°C (nominal operating cell temperature)

Additional electrical data		
Reduction of STC efficiency from 1000 W/m2 to 200 W/m2	[%] rel.	<2
Classification range (positive classification)	[W]	0/+4.99

Loads		
Max. module pressure load	[Pa]	5400
Max. module suction load	[Pa]	5400
Max. system voltage	[V_{DC}]	1000
Reverse current load I_R	[A]	20

Mechanical load acc. to IEC/EN 61215

Temperature coefficients			
Temperature coefficient I_{SC}	$\alpha(I_{SC})$	[%/k]	+0.05
Temperature coefficient V_{OC}	$\beta(V_{OC})$	[%/k]	-0.30
Temperature coefficient P_{MPP}	$\gamma(P_{MPP})$	[%/k]	-0.43

Basic modules data		
Length x width x height	[mm]	1345 x 990 x 50
Weight	[kg]	16
Number of cells		60
Cell size	[mm]	156 x 156
Cell material		Polycrystalline Si
Front sheet		Solar glass (TSG)
Back sheet		Polymer sheet black
Frame material		Al alloy black

Basic data junction box		
Length x width x height	[mm]	148 x 123 x 28
IP class		IP65
Cable length	[mm]	1200 (+), 800 (-)
Connectors		PV-JM601
Bypass diodes		3

Measurement tolerance of P_{MPP} under STC ±3%. Accuracy of other electrical values ±10%.